

## ENHANCING IMAGE RESOLUTION

### ABSTRACT

Methods, machines, and machine-readable media for enhancing image resolution are described. In one aspect, a respective motion map is computed for  
5 each pairing of a reference image and a respective image neighboring the reference image in a sequence of base images. Each motion map includes a set of motion vectors mapping reference image pixels to respective neighboring image pixels. Respective regions of a target image are assigned to motion classes based on the computed motion maps. The target image has a target resolution level and  
10 the base images have a base resolution level equal to or lower than the target resolution level. Pixel values for the target image are computed based on corresponding pixel value contributions from the motion-compensated neighboring base images selected in accordance with the motion classes assigned to the target image regions.